

Application No.: 10/676,569
Amendment Dated: February 5, 2007
Reply to Office Action of: November 3, 2006

MTS-3463US

Remarks/Arguments:

Claims 1-2, 4-8 and 12 are pending in this application. Claims 4 and 8 were indicated as allowable if combined with independent claim 1. Claims 1 and 6-7 have been amended. Claims 5 and 12 have been cancelled. No new material is introduced herein.

Applicants disclose a multilayer substrate. The substrate has a surface wiring 2 on a surface of the substrate, an inner wiring 4 formed between layers inside the substrate and a current-carrying element 9. A via hole is formed in the substrate. The via hole is connected to the surface wiring, the inner wiring and the current-carrying element. The substrate is formed from a glass epoxy resin and, without current-carrying element 9, the unused portion of the via hole resonates. With the current-carrying element, however, a length L2 of the current carrying element and a length L1 between the inner layer wiring and the current carrying element are adjusted so that the via hole only connects the surface wiring to the inner layer wiring at a predetermined frequency and the unused portion does not resonate.

Claims 1, 5-7 and 12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Nishimura (JP 63-59003). Applicants request reconsideration. With regard to claim 1, Nishimura does not disclose "a current-carrying element connected to a second end having no said surface wiring connected thereto...wherein a part of said current carrying element is formed by a conductive part of at least one additional via hole, thereby to shorten the current carrying element," as required by amended claim 1. Basis for this amendment may be found, for example, at page 21, line 16 through page 22, line 3 and Figs. 6. Specifically, for example, as shown in Fig. 6(a), current-carrying element 9 is connected to second end 7 of via hole 3 and is also formed by a conductive part of via hole 30.

Nishimura discloses a microstrip coaxial converter. The converter includes an outer conductor 8 formed on an outer portion of a coaxial line. An inside portion of the coaxial line includes a dielectric 7. As shown in Fig. 3, a ground conductor 4a has a through hole 3 formed in it. However, Nishimura discloses only one through hole. Thus, Nishimura does not disclose or suggest "a part of said current carrying element is formed by a conductive part of at least one additional via hole, thereby to

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shorten the current carrying element." Thus, Nishimura does not include all the features of claim 1, as amended.

Please note that the Office Action argues that element 7 is a current-carrying element; however, it is a dielectric. Therefore, we assumed Examiner intended to reference element 8 as the current-carrying element.

Because Nishimura does not disclose or suggest these limitations of claim 1, claim 1 is not subject to rejection under 35 U.S.C. § 102(b) as being anticipated by Nishimura. Claims 2 and 8 depend from claim 1; claim 4 depends from any one of claims 1 to 3; claim 6 depends from claim 1 or 2. Accordingly, these claims are not subject to rejection under 35 U.S.C. § 102(b) as being anticipated by Nishimura.

With regard to claim 7, Nishimura does not disclose "a current-carrying element formed between predetermined layers between a first connection point and said second end and is connected to the conductive part of said via hole instead of being connected to said second end, wherein the first connection point is one of a plurality of connection points between said inner layer wiring and the conductive part of said via hole and is the closest one of the plurality of connection points to said second end," as required by amended claim 7. This means current-carrying element 9 is located inside the multi-layer substrate and is attached to the via hole 3 at a place other than at an end. Basis for this amendment may be found, for example, at page 23, lines 1-10 and Fig. 8(a).

As shown in Nishimura Fig. 2, conductor 8 is connected to an end of via hole 3 via ground conductor 4. Thus, conductor 8 is not formed inside a substrate and attached to the via hole at a place other than at an end. Thus, Nishimura does not include all the features of claim 7, as amended.

Because Nishimura does not disclose or suggest these limitations of claim 7, claim 7 is not subject to rejection under 35 U.S.C. § 102(b) as being anticipated by Nishimura.

Claim 7 also stands rejected under 35 U.S.C. § 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter

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which applicant regards as the invention. The amendment to claim 7 removes any alleged indefiniteness, thus obviating the rejection. Withdrawal of this rejection is respectfully requested.

In view of the amendments and arguments set forth above, the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully submitted,


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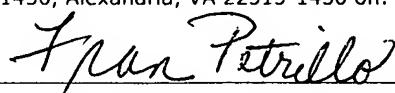
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